



07/994,950

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07/994,950 12/22/92 MORGAN

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PAN, D EXAMINER

ART UNIT PAPER NUMBER

2302

DATE MAILED:

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This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on Dec. 22 92 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892, | 2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. PTO | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-25 are pending in the application.

Of the above, claims NONE are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1-25 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

14. ☒ Other see attached.

EXAMINER'S ACTION

Serial Number 07/994950

Art Unit 2302

Claims 1-25 are presented for examination.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title is imprecise.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-25 rejected under 35 U.S.C. § 103 as being unpatentable over Inagaki (4,578,811) in view of Tan (4,141,073).

As to claims 1-3,6-9,16, Inagaki taught the invention substantially as claimed including a Data Processing system,D.P., comprising at least:

- a) means [4] for recognizing handwritten input, wherein the handwritten input comprised mathematical operators and operands(e.g. see Fig. 1; col. 2 line 44-col. 3 line 13);
- b) means[40][20] for performing calculations indicated by the operators and operands(e.g. see col.3 line 68-col.4 line 12);
- c) electronic input surface[4];
- d) processing circuit [10][11][20] for recognizing the movement of a stylus as it traced across the electronic input[4] for recognizing the movements of a stylus as characters(e.g. see col.4 lines 13-68; col.5 lines 1-31),for converting the

characters into mathematical expressions and performing calculations(e.g. see col.3 line 36- col.4 line 12;col.5 line 6 - col.6 line 44).

Inagaki did not explicitly teach the stylus for tracing as required by the claim. However, Tan disclosed a writing pen (i.e. the stylus) for writing symbols and numerals on any surface(e.g. see col. 2 lines 22-64). It would have been obvious to use the Tan's Stylus into Inagaki's system because Inagaki disclosed that his input surface was used for tracing and record the movements of the tracing to recognize the characters and the symbols ,and because Tan's stylus was applicable on any surfaces.

As to claims 4,5 , Inagaki also included display of result and the recorded movements(e.g. see col.2 lines 43-59).

As to claims 12-14, Inagaki also traced and recognized the result, and/or the equal sign(e.g see col. 3 lines 5-13) on the electronic surface. In addition, Tan's system was used to recognize the equal sign to calculate the intended results(e.g. see Tan's fig. 6;col. 3 lines 1-32).

As to claim 15, Inagaki also animated his operations in the display(e.g. see col.3 lines 60-67).

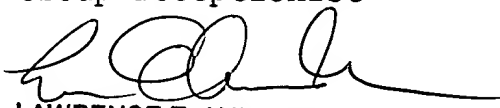
As to claims 17-25, Inagaki's mathematical expressions (e.g. represented by ASCII characters and numerals) were also logically linked(e.g. see col.9 line- col.10 line57).

As to claims 22-25 , Inagaki did not explicitly teach the incorporating the result of the first mathematical expression into the second mathematical expression as claimed. However, Inagaki taught that the result of his calculations were red and stored again in the plurality of registers in the memory in for arithmetical operations(.g. see col.3 lines 36-48). The arithmetic operations of Inagaki was not confined to a single mathematical expression because the calculation result(stored in the memory) was able to be recomputed by a new calculation. Therefore, Inagaki's system was also applicable to incorporate at least two mathematical expressions.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure
Howell et al. (5,226,091)
Kapp et al. (5,233,547)
Howells (4,151,596)
Forcier (5,231,698)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel H. Pan whose telephone number is 703 305 9696.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703 305 9600.


LAWRENCE E. ANDERSON
PRIMARY EXAMINER
ART UNIT 238